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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,368	07/24/2003	William E. Slack	PO7865/MD-02-02B	1231
157	7590	12/02/2005	EXAMINER	
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			PUTTLITZ, KARL J	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,368

Applicant(s)

SLACK ET AL.

Examiner

Karl J. Puttlitz

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 and 16-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5 and 11-15 drawn to a stable liquid biuret modified toluene diisocyanate classified in class 560 subclass 330+.
- II. Claims 6-10 and 16-20 drawn to a process for the preparation of a stable liquid biuret modified toluene diisocyanate classified in class 560 subclass 330+.
- III. Claims 21-23 and 28-30 drawn to a stable liquid prepolymer of biuret modified toluene diisocyanate classified in class 106 subclass 901*.
- IV. Claims 24-27 and 31-34 drawn to a process for the preparation of a stable liquid prepolymer of biuret modified toluene diisocyanate classified in class 106 subclass 901*.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a different process, such as the decomposition of polyisocyanates.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because patentability of the composition may rest in the isocyanate-reactive component. The subcombination has separate utility such as starting materials for polyisocyanates.

Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, i.e., starting material for a polyisocyanate vis-à-vis reparing a prepolymer.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, i.e., preparing a stable liquid biuret modified toluene diisocyanate vis-à-vis providing a prepolymer

Inventions III and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process

Art Unit: 1621

(MPEP § 806.05(f)). In the instant case the repolymer can be prepared by degradation of a polymer.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for the Groups is mutually exclusive, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Denise Brown on 11/23/2005 a provisional election was made with traverse to prosecute the invention of Group I claims 1-5 and 11-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-10 and 16-34 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 and 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 11 recite a stable liquid biuret modified toluene diisocyanate comprising a secondary amine based biuret modified toluene diisocyanate having an NCO group content of 16 to 46% by weight, comprising the secondary monoamine and toluene diisocyanate. It is unclear from this language if biuret is required at all by the claim.

Claim 1 recites that the secondary monoamine may be aliphatic, aromatic or araliphatic. It is unclear if the secondary monoamine must contain these groups.

Prior Art Rejections

At the onset the Examiner notes that the claims do not explicitly require both a biuret and a secondary monoamine group containing compound. Therefore, the claims have been interpreted as requiring a) a secondary monoamine group containing compound and b) a toluene diisocyanate, be given the broadest reasonable

Art Unit: 1621

interpretation. See M.P.E.P. § 2111 ("During patent examination, the pending claims must be "given *>their< broadest reasonable interpretation consistent with the specification." >*In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).<").

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 3,903,126 to Woerner et al. (Woerner).

The claims cover, inter alia, a stable liquid biuret modified toluene diisocyanate comprising a secondary amine based biuret modified toluene diisocyanate having an NCO group content of 16 to 46% by weight, comprising: (a) a secondary monoamine group containing compound which may be aliphatic, aromatic or araliphatic; and (b) toluene diisocyanate having an NCO group content of about 48.3% and comprising: (i) from 0 to 40% by weight of 2,6-toluene diisocyanate, and (ii) from 60 to 100% by weight

Art Unit: 1621

of 2,4-toluene diisocyanate, wherein the %'s by weight of (b)(i) and (b)(ii) total 100% by weight of (b).

The claims also cover those embodiments further comprising an aliphatic or aromatic alcohol. See claim 11.

Woerner teaches the preparation of biuret-containing polyisocyanates from biuret and , specifically, isomer mixtures of toluene-2,4-diisocyanate and toluene-2,6-diisocyanate. See column 3, lines 30-34. The examiner notes that, given the broadest reasonable interpretation of the claims, biuret meets the requirement of a secondary monoamine group containing compound.

Suitable inert diluents include ethyl glycol. See column 3, line 66.

The foregoing anticipates the rejected claims within the meaning of section 102.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62256893 (JP 893), Chemical Abstract online abstract [retrieved on 11/28/2005].

JP 893 teaches lubricating greases that contain reaction products of a mixture of a monamine compound and a diisocyanate. Notwithstanding the fact the abstract does not specifically mention toluene-2,4-diisocyanate and toluene-2,6-diisocyanate, the references suggests these compounds with the requisite particularity and guidance by the formula OCNR_2NCO , wherein R_2 is a divalent aryl. Therefore, the references renders the rejected claims prima facie obvious since the reference teaches the elements of the claims with specificity.

Conclusion

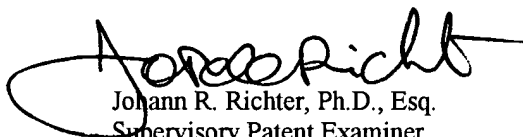
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday to Friday from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter, can be reached at telephone number (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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